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## EXPERT TESTIMONY—A DISCUSSION.

[As a result of the article on "Expert Testimony," published in the March number of THE AMERICAN LAW REGISTER for this year, the following letters were exchanged between the author of that article and Judge Penrose of the Orphans' Court of Philadelphia County. It is believed that they will be found of interest and value as presenting different views of the actual and ideal status of the expert; and they are therefore published as they come to our hands.—ED.]

### I.

CHELTON AND WAYNE, March 19, 1902.

DR. PERSIFOR FRAZER.

*Dear Sir:*—Please accept my thanks for the copy of "Expert Testimony, Its Abuses and Uses," which I have read with great interest.

A good deal of the confusion which exists with regard to the subject arises, I think, from the expression expert "testimony." Testimony, as I understand the term, is what is said by one having personal knowledge of *facts* as to which he testifies—having first been sworn to tell them truly; while, on the other hand, the expert, as the term implies, is one who by reason of study of the subject, or from long experience, observation, etc., is able to form an *opinion* upon facts disclosed by the testimony of others or in evidence, in some way, before the court or jury, which, by reason of such superior knowledge, etc., on his part, is received for the purpose of aiding the court or jury in reaching a proper conclusion.

Of course, the value of the opinion depends upon how far the person expressing it shows himself to have superior knowledge,—in other words, that he really is expert. But in any case he simply gives an opinion; and, as he does not testify to facts, a conviction for perjury would be impossible.

Opinion may be mistaken; facts cannot be: and if the opinions are in conflict with the facts, as established by the testimony of witnesses whose credibility cannot be questioned, the ordinary judge or jury would not be likely to be influenced by the opinion, no matter how eminent the expert or how manifest his impartiality and sincerity.

In my judgment the expert is—and should be so regarded—simply a scientific advocate, associated with the legal advocate, of the party on whose behalf he appears in the case.

Sincerely yours,

[Signed.]

CLEMENT B. PENROSE.

MARCH 20, 1902.

## II.

HON. CLEMENT B. PENROSE,  
GERMANTOWN.

*Dear Sir:*—Your notice of my article is appreciated. I feel sure you will absolve me from suspicion of egotism or interested motive for adding a word on behalf of the thousands of conscientious professional men, whose acquired knowledge in situations where accurate information is necessary is, and must ever be, used by the courts; as the experience of a guide must be used in an unknown country by officers of the law in pursuit of a criminal. The best representatives of this class feel their position to be one of serious responsibility, and from the time they enter the witness-box owe allegiance only to the truth (as the object), and the court (as the instrument of attaining that object), no matter who pays their fees. If there be expert witnesses who are partisans, it is because it is the interest of attorneys that there should be such witnesses. Only a few weeks ago I was reproached by an attorney who had retained me, because in giving my conclusions (which were favorable to his side) I specified precisely the amount of material which had been given me on which to base a judgment. I have little doubt that the conclusions I arrived at would have been emphasized if, in answer to my repeated requests, more standards had been provided, but they were not. The jury found against the client of the attorney just mentioned (on quite other grounds than any with which I had to do) and the latter asked me with much indignation, "Why did you expose to my opponent that you had but two standards?" I replied, "Because it was true, important, and might not have been brought out in cross-examination." "That is not my idea of an expert," said he. Nor is it the idea of the majority of members of the bar: if it were, the tacit assumption that expert conclusions are for sale would not be so generally entertained.

I have expressed in the article published in *THE AMERICAN LAW REGISTER*, in December, 1898, as well as in my book, "Bibliotics," and elsewhere, that for me the true expert must be simply an *amicus curiæ*. If he be a disguised special counsel, or as you call it a "scientific advocate," he is an expert fighter, a case winner,—what you will,—but not an expert in its highest and best sense. The distinction is like that between the torpedo boat and the torpedo-boat destroyer; or still better, between a judge and an advocate.

Outside of legal definition and usage, about which I am not entitled to an opinion, I repudiate the idea of advocacy in an expert; or that he does not testify to facts as much as an eye-witness; or that he should not be as liable as any other liar to prosecution for perjury if he knowingly misstates. The opinion

which results from an examination of a subject by an expert is a fact as much as any occurrence, and if he deliberately denies holding such an opinion, he is (outside of the legal definitions) a perjurer and a criminal. I confess I cannot understand the legal restriction of an expert's examination to opinion.

Suppose the question is as to whether a piece of steel contained, as required by contract, less than three-hundredths of one per cent of phosphorus. Does not the chemist who weighs out and testifies to the actual amount testify as to a fact? Does not the bacteriologist who detects and proves by cultures the micro-organism typical of a certain disease testify to a fact? Has not an eminent English judge said that a state of mind is a fact?

There is but one truth and but one best method of attaining it, whether it be called rules or evidence, or the scientific method. I speak only from experience with the latter in expressing my conviction that proof by various converging circumstantial lines, which have been rigidly scrutinized, is indefinitely stronger than eye-witness evidence, which after all is opinion evidence to the extent that it is an interpretation of what seemed to be a visual impression. The danger of error through one illusion is greater than where any other than the state of things represented by the conclusion would leave twenty circumstances with their ends in the air like a disarranged Chinese puzzle.

Very sincerely and respectfully,

[Signed.]

PERSIFOR FRAZER.

### III.

CHELTON AND WAYNE, March 21, 1902.

DR. PERSIFOR FRAZER.

*My Dear Sir:*—A scientific man may, of course, testify to facts, as in the case of percentage of phosphorus in a piece of steel, suggested in your note of yesterday, which reached me this morning, or that of the quantity of coal taken from a mine, referred to in your very instructive essay; but in so doing, though his scientific knowledge has taught him how to ascertain the fact, he testifies to the *fact*, thus ascertained, and not to a mere opinion,—and, therefore, not as an expert but as an ordinary witness. In such case if he testifies falsely he can be indicted and convicted of perjury. But when he asserts that in his opinion a testator was of unsound mind, or that what purports to be the signature of one whom he has never known is, in his opinion, simulated, how would it be possible—though his moral guilt would be no less—to convict him of perjury, no matter how untrue the assertion may be?

If the expert could act simply as *amicus curiæ*, or *amicus juratorum* (for he is generally called in to express his opinion

as to questions of fact), or if he could be regarded as in a judicial position, there would be, unquestionably, the great advantage of impartiality and freedom from bias; but in the latter case, there would have to be an appellate court of scientific men to review his judgments, just as a court of lawyers reviews the judgment of the legal judge; while in the former case, it would not do to deprive the party against whom the scientific opinion is pronounced of the opportunity of contradicting the soundness of the opinion or showing by cross-examination the want of knowledge of the person expressing it, or the illogical method by which his conclusion was deduced from his premises.

As advocate, he will convince, if his reasons are sound, just as the legal advocate does when he shows that the facts and the law are as he asserts.

Sincerely yours,

[Signed.]

CLEMENT B. PENROSE.

#### IV.

MARCH 22, 1902.

HON. CLEMENT B. PENROSE,  
GERMANTOWN.

*Dear Sir:*—The reply you were good enough to make to my letter brings us face to face with one of the most difficult problems in the expert question, which is: "Who is to be the judge of whether certain testimony is fact or opinion?"

Before the perfection of Bertillon's system of measuring criminals, those most competent to judge admitted that where the identification of an individual was only through a general impression of his features in the minds of his nearest relatives and friends, numerous instances kept recurring where it failed. Even where some personal peculiarity (a broken tooth, a mole, and the like) was known to exist, this peculiarity, or a few such, had been found upon the falsely identified person. In the absence of some very extraordinary peculiarity, or a large number of small ones, it may be said that, up to the application of Bertillon's system, identification of a person was a matter of opinion and not of fact. Bertillon simply enormously multiplied the details which were made the basis of an identification, measuring the lengths and breadths of the separate parts of the body, until such an anatomical formula was reached as no human being has ever duplicated. The chance of any other thing possessing all these peculiarities being represented as millions against one, it is considered practically "certain" that one who furnishes measurements exactly corresponding to a given record is the individual of whom the record is made. By this advance in method the question has ceased to be one of opinion and has become one of fact.

Incidentally it may be said the person who makes the original measurements of a given record is no more capable than any other of identifying the original by means of that record. Nevertheless, it is thinkable a court would hold that in spite of exact correspondence in all the details between a suspected individual and a record, the identification was merely "opinion."

What Bertillon has done for human beings I have endeavored to do for handwriting; *i. e.*, multiply the details subjected to measurement and description, so that correspondence in a large number of them (especially in those which record themselves independently of the will) is impossible, unless their origin be identical. In the cases where this can be successfully done, and they are many, the identification of authorship of handwriting is not any less "certainty" than the other. Frequently seeing a person write is not of the slightest assistance in reaching a conclusion as to the genuineness of a given writing. As in the first case the chance of an error in the conclusion is, under the circumstances above mentioned and frequently realized, one in many millions.

The constant advance of science, and perfection of methods and apparatus, is continually lifting subjects out of the realm of opinion into that of fact, but of course the administration of justice must keep prudently far in the rear of the pioneers.

Your objection to the appointment of court experts you will find stated in the first edition of my "Bibliotics," before referred to, and third edition, p. 237, Appendix F, and almost in the same language in numerous papers since. On account of that objection I drafted the present law of 1895. Instead of attempting to exclude all experts but one, who might become an intolerable tyrant, I sought to leave the litigants free to call as many as they chose, but to make the conditions such that none but the competent could appear in the witness-box. Unfortunately, it is not possible to provide against moral delinquency. In the bill which the Bar Association is preparing for enactment, and about which Judge McPherson did me the honor to ask my views of certain parts in which I am entitled to hold any, I have tried to perpetuate this feature.

It is a nebulous, uncertain, and ever changing line which separates what the court calls "*opinion*" and "*fact*." In truth, the belief of the court in the reality of such a distinction is *opinion* and not *fact*; and, anyhow, all that we can know of any "*fact*" is that it is an "*opinion*" held by many or few persons, and this includes even the great first fact, *Cogito ergo sum*, which as regards incontrovertibility is in a class all by itself.

Very respectfully,

PERSIFOR FRAZER.